

Card 1 of 1

The minerals which were used

KUPENNIKOVA. F.¹.

Extracts of nitrogen bases in muscle tissue and thier biological
significance. VII. The presence of anserine in the muscle of sheep. A.N. PARSHIN
AND K.A. KUPENNIKOVA. (DEPT. OF BIOCHEM. LENINGRAD BRANCH OF THE ALL-UNION
INSTITUTE OF EXPERIMENTAL MEDICINE) vol.3, no.2, p. 169. 1938.

USSR/Chemistry - Organic chemistry

Card 1/1 Pub. 22 - 23/49

Authors : Krupennikova, K. A., and Sokol'skiy, D. V., Memb. Corr. Acad. of Sc.,
Kaz. SSR

Title : Catalytic cyclization of ortho-nitroethyl benzene

Periodical : Dok. AN SSSR 102/1, 93-95, May 1, 1955

Abstract : Experiments were conducted to determine the catalytic derivation of indole from direct cyclization of o-nitroethyl benzene which reduces one stage of the synthesis process. The results obtained during the reaction over an aluminum silicate catalyst (of petroleum cracking application) saturated with chromium anhydride and activated with KOH are listed. Maximum indole yield was obtained at a molecular ratio of o-nitroethyl benzene: hydrogen of 1 : 1. Seven references: 4 USSR and 3 USA (1936-1951). Tables.

Institution : The Kazakh State University im. S. M. Kirov

Submitted : November 14, 1954

Distr: 4E2c(j)/4E3d

V Cyclization of *o*-nitroethylbenzene to indole over catalyst containing titanium dioxide. *K. A. Krupchenko, P. S. Ibrayev, Sh. Nurgozhaeva, and K. S. Likarina. Izv. Akad. Nauk Kazakh. S.S.R., Ser. Khim.* 1959, No. 1, 71-6.

The study of the cyclization reaction of *o*-nitroethylbenzene (I), showed that a freshly prepd. catalyst obtained by pptg. TiO_2 from $TiCl_4$ with NH_3 gives yield of an indole (II) equiv. to 10.5%, at 650°, 2 ml./hr. feed of I and 1 l./hr. H_2 . The addn. of Cu salts to the TiO_2 as a promoter did not produce a noticeable increase in yield of II as compared with the pure TiO_2 . The addn. of K_2O , which gave a noticeable pos. promoter effect on $Cr_2O_3-Al_2O_3$ catalyst showed a neg. action in case of the catalyst contg. Ti. A satn. of TiO_2 with Cr_2O_3 and subsequent redn. in a stream of H_2 increased the yield of II and also raised the stability of the catalyst. Tests, carried out with a mixed catalyst of $TiO_2-Al_2O_3$ indicated that the best yield of II (15.3%) was obtained on a catalyst contg. 20% TiO_2 and 80% Al_2O_3 . The study of methods of sepn. of II from the benzene extn. of the catalyst included: steam distn. followed by the extn. of the distillate with Et_2O , fractionation *in vacuo*, and the sepn. of II as a picrate. In all cases the product was a noncrystg. oil owing to the presence of small amounts of by-products. The cryst. II, m. 51-2°, was obtained after 4-5 passes of the crude benzene extn. through an absorption column packed with chromatographic type Al_2O_3 .
A. V. Tullnac

7
BW(BW)
JAJ(NB)
2

GUTOROV, Mikhail Maksimovich, dots.; KRUPENNIKOVA, L.I.,
assisten.

[Principles of electric lighting engineering and light
sources] Osnovy svetotekhniki i istochniki sveta. Mo-
skva, Mosk. energeticheskii in-t. Pt.1. 1962. 148 p.
(MIRA 17:5)

1. Kafedra svetotekhniki i istochnikov sveta Moskovskogo
energeticheskogo instituta (for Gutorov).

BELKIN, A.; BORISOV, A.; GENIN, B.; GUSLITSER, I.; GRUZDEV, V.; DICH, S.;
DUSEYEVA, Ye.; YEGOROVA, A.; ZAK, S.; KAZYMOV, A.; KRUFENNIKOVA, Ye.;
KONKIN, A.; MOGILEVSKIY, Ye.; PAKSHVER, A.; SMELKOV, G.;
CHICHKHIANI, A.; CHUGUNOV, K.; SHIFRIN, L.; YUNOVICH, E.

Sergei Alekseevich Tairov. Khim.volok. no.3:79 '62,
(MIRA 16:2)
(Tairov, Sergei Alekseevich)

ISSN NO. A11097713

S 0601-6100/70 0180-0190

AUTHOR: Fedoseyev, A. D., Grigor'yeva, L. F., Krupennikova, Z. V.

Study and study of fibrous minerals of the type of amphibole asbestos

USSR: Institut khimii silikatov. Silikaty i sklyo khimii vysokikh temperatur i oksidy i oksidy v vysokotemperaturnykh khimii. Moscow, 1963. 180-190

Keywords: fibrous mineral asbestos; synthetic amphibole; amphibole composition; fluoromagnesian; fluorotremolite; fluorotremolite; X-ray diffraction analyzer

ABSTRACT: The authors studied the conditions of formation of amphiboles having a fibrous structure by synthesizing the simplest representatives of this group of minerals: $Mg_3Si_2O_5(OH)_4$ and fluorotremolite $(CaMg_4Si_6O_{22}F_2)$. Two methods of synthesis were used: the solid-state method and the molten salt method. The most reproducible results were obtained when the mineralizer was used in the total. The optimum temperature conditions for the crystallization of amphiboles were also determined. The synthetic fluorine magnesium

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ACCESSION NR: AT5007733

It was shown to be very close in composition to theoretical richterite. The composition of richterite was analyzed thermographically, and the changes in weight during heating were studied by optical and x-ray methods. The constants of the reaction were determined by G. A. Ruzhkov using a rotating needle method. The composition of synthetic amorphous K_2O determined by K. G. Kuznetsov and Ye. G. Khramova in the microchemical method at the USSR Academy of Sciences using a microchemical method. (Figures and tables)

ASSOCIATION: none

SUBMITTED: 0000063

ENCL: 00

SUB CODE: MT

NO REF SOV: 007

OTHER: 018

Card 2/2

ROSIK, A.; ROGU, M.; OTOPCHI, T.

Contributions to the selection of antibiotic producers. p. 95.

REVISTA DE CHIMIE. Bucuresti, Rumania. Vol. 10, no. 2, Feb. 1959.

Monthly List of East European Accessions. (FEAI), 10. Vol. 8, no. 9, Sept. 1959
Incl.

KRUPENYA, A.V., inzh.

Operation of ASP- machines for gas cutting. Svar. proizv.
no.2:38 F '60. (MIRA 13:6)

1. Ivanovskiy zavod avtokranov.
(Gas welding and cutting—Equipment and supplies)

YEFETOV, V.M.; POTAPOVA, L.V.; KRUPENYA, A.V.

Results of combined resection in cancer of the stomach.
Khirurgiya 39 no.10:24-31 O '63. (MIRA 17:9)

1. Iz khirurgicheskogo otdeleniya (zav. V.M. Yefetov) Krymskogo
oblastnogo onkologicheskogo dispansera (glavnyy vrach O.D.
Firsova), Simferopol'.

YERETOV, V.M. (Simferopol', ul. Gogolya, 40. ; KRYMCHENKO, A.V.) POTAPOVA, L.V.

Transperitoneal total gastrectomy in stomach cancer. Vest.
Khir. 92 no.4:43-47 Ap '64 (MIRA 18:1)

1. Iz khirurgicheskogo otdeleniya (rav. V.M. Yeretov) Krymskogo oblastnogo onkologicheskogo dispansera (glavnyy vrach O.D. Firsova), g. Simferopol'.

ACC NR# AI-7000305

~~SOURCE CODE~~ ~~UNCLASSIFIED~~ ~~CONFIDENTIAL~~

INVENTOR: Mashnikov, Yu. I.; Lebedev, O. M.; Treskov, V. V.; Rozenberg, M. X.;
Bakulin, A. I.; Boyko, I. I.; Krupenya, B. I.

ORG: None

TITLE: A mechanism for forced impact destruction of a diaphragm. Class -7. 50.
183810

SOURCE: Izobreteniya, promyshlennyye obraztzy, tovarnyye znaki, no. 22, 1966, 143

TOPIC TAGS: pneumatic device, gas pressure

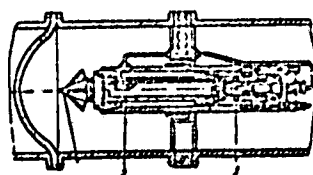
ABSTRACT: This Author's Certificate introduces a mechanism for forced impact destruction of a diaphragm. The unit consists of a striker and a ball catch which holds the striker in the cocked position. The kinetic energy of the striker is increased by the rigid connection to a piston which uses gas pressure to move the striker after the ball catch is released.

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UDC: 621.646.824:621.646.38

0920 2680

ACC NR: AP7000365



1--striker; 2--piston; 3--ball catch

SUB CODE: 13/ SUBM DATE: 01Feb65

Page 1

TOPCHYEVA, K.V.; MOSKOVSKAYA, I.F.; BODROVA, L.G.; KRUPENYA, E.I.

Studying the nature of the activity of aluminosilicate catalysts.
Vest Mosk. un. Ser. nat., mekh., astron., fiz., khim. 14 no.2:
225-235 '59 (MIRA 13:3)

1. Kafedra fizicheskoy khimii Moskovskogo gosuniversiteta.
(Catalysts) (Aluminosilicates)

KRUPENYA, P.V.

Improving the grinding of taps. Stan. ! instr. 36 no.8127 Ag '65.
(MIRA 18:9)

KRUPENYA, P.V.

End milling cutter with internal tool fastening. Mashino-
stroitel' no.12:20 D '63. (MIRA 17:1)

KRUFENIA, P.V. [Krupenya, P.V.]

Cooling of instruments by pulverized liquids. Ratsionalizatsiia
13 no.4:22 '63.

KRUPENYA, P.V.

Cooling cutting tools with sprayed fluids. Mashinostroitel' no.2:27
F '63. (MIRA 16:3)
(Metal-cutting tools—Cooling)

BUDYAK, N.F.; VORONOVICH, S.A.; KRUPENYA, S.I.

Neutral tar lubricant from the power-engineering refinement
of lignite. Khim. i tekhn. topl i masel 9 no.8:37-41 Ag '64.
(MIRA 17:10)

1. Podmoskovnyy nauchno-issledovatel'skiy i proyektno-
konstruktorskiy ugol'nyy institut.

KRUZHEN'YE, Yu.L., kand.tekhn.nauk

Calculation of the inductive impedance of a coil with an open-circuited magnetic system (core) in the form of a circular steel rod.
Izv.vys.ucheb.zav.; energ. 3 no.10:40-46 0 '60. (MIRA 13:11)

1. Sredneaziatskiy politekhnicheskiy institut.
(Cores (Electricity)) (Electric coils)

KOSHELEV, V.; SRCHOGOLIV, M.; SAAN, Kh.; KIRILYUK, P.; IVANOV, A.; SAVELENKO, I.;
KRUPETS, A.; KONYAIV, A.; BARMANOV, V.; NIKOLAYENKO, A.; LUKASHOV, A.

Our strength resides in collective labor. Mast. ugl. 8 no.8:14-15
Ag '59. (MIRA 12:12)

1. Pyatyy uchastok shakhty "Novodrusheskaya" tresta Lisichanskugol'.
(Lisichansk--Coal miners)

POLIKHAT, Z.S.; KRUPEY, S.A.

Developing the well-bottom zone by the implosion method.

Neft. khoz. 43 no.2:41-45 F '65.

(MIRA 18:4)

AL'PERIN, P.M.; KRUPIANKO, V.Ye.; LOGINOVA, F.I.

Use of an alcohol-glucose solution of albumin in diseases of the
gastrointestinal system. Probl. gemat. i perel. krovi 5 no. 8:44-
48 Ag '60. (MIRA 14:1)
(BLOOD PLASMA SUBSTITUTES) (ALIMENTARY CANAL—DISEASES)

KRUPICKA, J.

CZECHOSLOVAKIA

NOLY, A.; KRUPICKA, J.; ARNOLD, Z.

Institute of Organic Chemistry, Czechoslovak Academy of Sciences,
Prague

Prague, Collection of Czechoslovak Chemical Communications, No 12,
Dec 1969, pp 4127-4141

"The polarographic behavior of polymethinium salts."

KRUPICA, M.

LHK horizontal forging machines. p.226.
(Strojirenska Vyroba, Vol. 5, No. 5, May 1957, Praha, Czechoslovakia)

SC: Monthly list of East European Accessions (SEAL) IC. Vol. 6, No. 9, Sept. 1957. Uncl.

KRUPICA, M.

LKM crank forging presses. p.272.
(Strojirenska Vyroba, Vol. 5, No. 6, June 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) IC. Vol. 6, No. 9, Sept. 1957. Uncl.

KRUPICA, M.

"Forming machines of the E. W. Bliss Company, U. S. A.

p. 585 (Strojirenska Vyroba) Vol. 5, no. 12, Dec. 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

TRUPICA, V.

The LLT 160/1100 double-standard toggle lever press. n. 601. (STROJIRENSTVI,
Vol. 7, No. 3, Aug 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (REAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

KUBICKA, J.; HOCHE, J.

"Oxidations with chromium (VI) oxide. VII. Mechanism of oxidation of secondary alcohols." (In English)

COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS, . Praha, Czechoslovakia,
Vol. 23, no. 11, Nov. 1958

Monthly list of EAST EUROPEAN ACCESSIONS (EEAL), IC, Vol. 8, No. 7, July 1959, Unclas.

KRUPICH, V.I. (Moskva)

Using the abacus for arithmetic lessons in the fifth grade.
Mat. v shkole no.5:58-65 8-0 '56. (MLRA 9:10)
(Abacus)

KRUPICH, V.I.

Exercises with the arithmetic slide rule and adding machine.
Uch. zap. MGPI 116:139-155 '58. (MIRA 12:9)
(Calculating machines) (Slide rule)

KRUPICH, V.I.

Study of the slide rule in an algebra course in secondary schools.
Uch. zap. MGPI 151:268-279 '60. (MIRA 16:5)
(Slide rule)
(Mathematics—Study and teaching)

ORSHONKOVSKIY, V.V., kand.med.nauk; DOVZHANSKIY, S.I., kand.med.nauk;
KRUPICHEVA, A.A.

Reiter's syndrome with ankylosing spondylarthritis. Vest. dermat. i
ven. 38 no.6:90-91 Jo '64. (MIRA 18:6)

1. Sochinskiy nauchno-issledovatel'skiy institut kurerologii i
fizioterapii (dir. - заслуженный врач РСФСР N.Ye.Romanov)
Ministerstva zdravookhraneniya RSFSR.

ZALMAN, E.; POLACKOVA, J.; KRUPICKA, B.

Effect of psychoton on normal subjects. Lek.listy 6 no.1:19-23
1 Jan 51. (CML 20:5)

1. Of the State Psychiatric Hospital in Brno-Cernovice (Head--
Mil Zelman, M.D.).

ZALMAN, M.; KRUPICKA, B.; POLACKOVA, J.

Cerebrospinal, venous and arterial pressure in intravenous administration
of massive doses of bensedrine. Cas.lek.cesk. 90 no.19:583-585 11 May 51.
(CJML 20:8)

1. Of the State Psychiatric Hospital in Brno-Cernovice (Director--Emil
Zalman, M.D.).

JADRNIKOVA, Ludmila; KRUPICKA, Josef

Polarographic determination of terephthalic acid by rearrangement of potassium phthalate. Chem prum 13 no.11:575-577 N°63.

1. Ustav teoretickych zakladu chemicke techniky, Ceskoslovenska akademie ved, Praha (for Jadrnickova). 2. Ustav organické chemie a biochemie, Ceskoslovenska akademie ved, Praha (for Krupicka).

"APPROVED FOR RELEASE: 06/19/2000

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CIA-RDP86-00513R000826720018-7"

CZECHOSLOVAKIA/Analytical Chemistry - Analysis of Organic Substances. E-3

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14234.

Author : Zuman Petr, Krupicka Josef

Inst :

Title : Polarographic Method of Studying the Interaction of Periodic Acid with Glycols.

Orig Pub: Chem. listy, 1957, 51, No 3, 424-432.

Abstract: The method of polarographic determination of periodic acid (I) is utilized for a continuous study of the interaction of salts of I with glycols. The advantage of the above-stated method is its speed which permits to study the kinetics of the reaction, as well as its specific nature, small expenditures of materials and the possibility of determining of a number of substances. A vessel is described which makes it possible rapidly to add and withdraw the solutions, effect rapid and efficient agitation and to eliminate, as

Card : 1/2

CZECHOSLOVAKIA/Analytical Chemistry - Analysis of Organic Substances. E-3

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14234.

far as practicable, contact of dropped off mercury with the solution of I. The above-described method is applicable in the analyses of mixtures threo-and erythrospimers of 1,2-diols having an open chain. The method is also suitable for a polarographic determination of different alcohols.

Card : 2/2

CZECHOSLOVAKIA/Organic Chemistry. Theoretical and General
Questions on Organic Chemistry.

G-1

Abs Jour: Ref Zhur-Khin., No 13, 1958, 43207.

Author : Zuman Petr, Jicher Jiri, Krupicka Josef, Svoboda
Miroslav.

Inst :

Title : Stereochemical Studies. VII. Oxidation of Diastereo-
isomeric Diols of $RCH(OH)CH(OH)R'$ Type with Periodate.

Orig Pub: Chem. listy, 1957, 51, No 6, 1068-1081.

Abstract: Polarographic study (see Communication VI, RZhKhin,
1956, 78180) of the rate of oxidation of nine pairs
of acyclic diols of $RCH(OH)CH(OH)R'$ type with periodate
at different pH (2-7.9) and diol concentration
($6 \cdot 10^{-5}$ - $9 \cdot 10^{-4}$ M). Investigated were
ethylene glycol (I), threo- and erythro-isomers of

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CZECHOSLOVAKIA/Organic Chemistry. Theoretical and General
Questions on Organic Chemistry.

G-1

Abs Jour: Ref Zhur-Khim , No 13, 1958, 43207.

butandiol-2,3, hexandiol-3,4, octandiol-4,5,
1-phenylpropandiol-1,2, 1-phenylbutandiol-1,2,
1-phenyl-3-methyl-butandiol-1,2, and also of threo-
1-cyclohexyl-propan-1,2-diol (III), MP 79-80°
(from iso-(C₆H₇)₂O or ether), and erythro-1-cyclo-
hexyl-propandiol-1,2 (IV), MP 67-68° (from petroleum
ether). III and IV were obtained by hydrogenation of
threo- and erythro-II in alcohol solution containing
HCl, over PtO, at 20° and 760 mm. In the case of
I the previously determined correlation between
reaction velocity and pH (RZhKhim, 1956, 15620),
was verified. Reactions of the other diols are
acid-base reactions of second order. Reaction velo-
city is determined, apparently, by proton displace-

Card : 2/3

CZECHOSLOVAKIA/Organic Chemistry. Theoretical and General
Questions on Organic Chemistry.

Abs Jour: Ref Zhur-Khim., No 13, 1958, 43207.

G-1

ment taking place after the interaction of diol with NaIO_4 . A refutation is presented of the assumption that the determinant stage is the decomposition of the cyclic intermediate product of interaction of diol and HIO_4 or IO_4^- , direct interaction of diol with NaIO_4 or ionization of diol, preceding the reaction with NaIO_4 . At all values of concentration and pH the threo-epimers are oxidized more rapidly than erythro-epimers. Thus, from the rate of oxidation it is possible to determine the configuration of substances of this type.

Card : 3/3

CZECHOSLOVAKIA/Analytic Chemistry. Analysis of Organic Substances.

E

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77364.

Author : Zuman P., Krupicka J.

Inst :

Title : A Polarographic Method for the Study of Glycol Fission by Periodic Acid.

Orig Pub: Collect. czechosl. chem. commun., 1958, 23, No 4, 598-607.

Abstract: See RZhKhim, 1958, 14234.

Card : 1/1

Country	: Czechoslovakia	G-1
Category	: Organic Chemistry. Theoretical Organic Chemistry	
Abs. Jour.	: Ref. Zhur.-Zhimiya No. 6, 1959	19286
Author	: Zuman, P.; Sicher, J.; Krupicka, J.; Svoboda, M.	
Institut.	:	
Title	: Stereochemical Studies. VII. Periodate Oxidation of Diastereoisomeric Diols of the Type R.CH(OH).CH(OH).R ¹ .	
Orig Pub.	: Collect. czechosl. chem. commun., 1958, 23, No 7, 1237-1251	
Abstract	: See RZhKhim, 1958, 43207.	

Card: 1/1

7
 Oxidations with chromic oxide. VII. Mechanism of the oxidation of secondary alcohols. Jan Růžek and Josef Krupička (Čes. akad. věd, Prague). Chem. listy 52, 1735-1738 (1958); C.A. 52, 4810b. — Oxidation of iso-PrOH (I) by CrO_3 (II) in a strongly acidic medium contg. 5-70% H_2SO_4 was studied by polarographic method. The course of $\log k$ plotted against H_0 is linear up to $H_0 = -8.5$ and the slope of the line is 0.91. These results favor a new proposed mechanism for the oxidation of secondary alcs. by II by way of a cyclic transition state (III) featured by a hydride transfer from the secondary C to II. This mechanism offers a much more satisfactory explanation of a

series of phenomena observed in the oxidation of alcs. by CrO_3 than the generally accepted mechanism of Cohen and Westheimer (C.A. 47, 8633a) who assumes the formation of an ester of I with II as an intermediate. The catalysis of the reaction by $\text{C}_6\text{H}_5\text{N}$ described by C. and W. was not noticed. On the basis of the measurements of the oxidation rate in the dependence on the concn. of H_2SO_4 , the $\text{p}K_a$ of the conjugate acid of I was estd. to -4.1 ± 0.8 . The mechanism proposed for the secondary alcs. could also be possibly applied to primary alcs. M. Hudlický

5
 2-ray

gaf

COUNTRY : CZECHOSLOVAKIA B
 CATEGORY : Physical Chemistry. Electrochemistry
 ABS. JOUR. : RZKhim., No. 1 1960, No. 621
 AUTHOR : Krupicka, J.; Kadlec, J.
 INST. :
 TITLE : Polarographic Method of Direct Study of Oxidation under Influence of Chromic Acid
 ORIG. PUB. : Chem. listy, 1958, 52, No 12, 2278-2284; Collect. Czechosl.Chem.Communs, 1959, 24, No 6, 1783-1790
 ABSTRACT : In strong acid solutions of H_2SO_4 and CH_3COOH , chromic acid gives the polarographic wave of reduction. The height of the wave corresponds to a 3-electron reduction to Cr (+3) and depends linearly on the concentration of chromic acid at concentrations of H_2SO_4 from 3.8 to 14.3 M. This wave may be used for continuous observation of the decrease of chromic acid in oxidation of alcohols. The maxima of the second

CARD: 1/3

B-45

COUNTRY	:		B
CATEGORY	:		
ABS. JOUR.	:	RZKhim., No. 1	1960, No. 621
AUTHOR	:		
INST.	:		
TITLE	:		
ORIG. PUB.	:		
ABSTRACT cont'd	:	order were observed and therefore the investigations were effected at a slow rate of discharge of Hg. In the oxidation of isopropyl alcohol a wave of about -1.1 v was observed, which was attributed to the reduction of the complex of Cr (+3) with isopropyl alcohol. The method was applied to the study of the rate of oxidation of isopropyl alcohol and for the analysis of a mixture of the isomers	
CARD:		2/3	

COUNTRY :
CATEGORY : B
ABS. JOUR. : RZKhim., No. 1 1960, No. 621
AUTHOR :
INST. :
TITLE :
ORIG. PUB. :
ABSTRACT : of 2-methylcyclohexanone. The curves of the
cont'd dependence of i (lim.) upon time were recorded
automatically.-- P. Zuman

CARD: 3/3

B-46

KRUPICKA, J

^v Polarographic method for the direct measurement of rates of oxidation by chromic acid. J. Krupicka and J. Kadlec (Czechoslov. Acad. Sci., Prague). *Collection Czechoslov. Chem. Commun.* 24, 1763-60 (1959) (in English); *Chem. Listy* 52, 2278 (1958).—Suitable for continuous measurement of org. oxidns. with CrO_3 , the method is applicable to reactions (with half-times lower than 5 min.) which are impossible to follow by volumetric methods. The polarographic redn. of CrO_3 in aq. H_2SO_4 (3.8–14.3M) gave, for the wave of CrO_3 to Cr^{+++} , a height varying linearly with the Cr(VI) concn. when low rates of Hg flow were maintained to prevent max. Oxidn. of iso-PrOH by CrO_3 in H_2SO_4 was followed below –1.0 v. (H. concd. H_2SO_4 , electrode contg. 17M H_2SO_4) because of a redn. wave for Cr(III) , obtained at about –1.1 v. and attributed to a complex of iso-PrOH with Cr(III) . Loss of CrO_3 by reaction with excess Hg in the cell had to be considered. In HOAc this oxidn. of Hg was largely suppressed; also, the wave due to Cr(III) was absent. For the oxidn. of iso-PrOH with CrO_3 in 5.97M H_2SO_4 at 25°, a rate const. K_1 of $1.49 \times 10^{-3} \text{ sec.}^{-1}$ was obtained. Analysis of mixts. of *cis*- and *trans*-2-methylcyclohexanol on the basis of the difference in their rates of oxidn. with CrO_3 in HOAc soln. is possible with an accuracy of $\pm 3\%$. The method has the advantage of insensitivity to the presence of compds. not oxidized by CrO_3 or reduced at the dropping Hg electrode. J. P. Huskron

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e Jf (WA)

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LHOTAK, J.; PELLANT, A.; NOVOTNY, J.; KRUPICKA, J.

Surgical treatment of congenital broncho-esophageal fistula in an 18-month-old infant. Cesk.pediat.15 no.10:905-912 0'60.

1. Oddeleni detske, klinicka zakladna UDL, ORL, chirurgicke a rtg nemocnice GUNZ v Havlickove Brode.

(BRONCHIAL FISTULA in inf & child)

(ESOPHAGEAL FISTULA in inf & child)

KRUPICKA, J.; NOVAK, J.J.K.

Polarographic determination of methylglyoxals. Coll Cz Chem
25 no.5:1275-1280 My '60.

1. Abteilung für organische Synthesen, Chemisches Institut,
Tschechoslowakische Akademie der Wissenschaften, Prag.

FARKAS, J.; KOMRSOVA, H.; KRUPICKA, J.; NOVAK, J.J.K.

Relation between the chemical structure and insecticidal activity in pyrethroid compounds. IV. Effect of the substituent of the side chain in the process of the Laforge cyclization. Coll Cs Chem 25 no.7:1824-1836 J1 '60. (EEAI 10:9)

1. Abteilung für organische Synthesen, Chemisches Institut, Tschechoslowakische Akademie der Wissenschaften, Prag.

(Pyrethroids) (Ring closure)

RUDINGER, J.; KRUPICKA, J.; ZAORAL, M.; CERNIK, V.

Amino acids and peptides. XXX. Alkaline hydrolysis of the phthalimido group in phthalylamino acids and their derivatives; a polarographic study. Coll Cs Chem 25 no.12:3338-3343 D '60.

(EEAI 10:9)

1. Department of Organic Synthesis, Institute of Chemistry, Czechoslovak Academy of Science, Prague. 2. Present address: Faculty of Nuclear Physics, Charles University, Prague (for Cernik).

(Amino acids) (Peptides) (Phthalimide)
(Phthalyl amino acids) (Polarograph and polarography)

SIPOS, F.; KRUPICKA, J.; TICHY, M.; SICHER, J.

Stereochemical studies. Part 23: The 4-*t*-butyl-2-methylcyclohexanols, their synthesis and rate of chromic acid oxidation. Coll Cz Chem 27 no.9:2079-2089 S '62.

1. Institute of Organic Chemistry, and Biochemistry, Czechoslovak Academy of Sciences, Prague.

ZEMLICKA, J.; KRUPICKA, J.; ARNOLD, Z.

Self-condensation of triformylmethane to 1,3,5-triformylbenzene.
Coll Cz chem 27 no.10:2464-2467 0 '62.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak
Academy of Sciences, Prague.

SETINEK; RATHOUSKY, J.; KRUPICKA, J.

The course of hydrolysis of some organic anhydrides and their solubility in water. Coll Cs Chem 27 no.11:2694-2699 N '62.

1. Institut für theoretische Grundlagen der chemischen Technik und Institut für organische Chemie und Biochemie, Tschechoslowakische Akademie der Wissenschaften, Prag.

KRUPICKA, J.

2

CZECHOSLOVAKIA

ZAVADA, J; KRUPICKA, J; SICHER, J.

Institute of Organic Chemistry and Biochemistry of the
Czechoslovak Academy of Sciences, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 7, 1963, pp 1664-1673

"Stereochemical Studies. XXVI. Determination of the Stereo-
chemistry of Vicinal Dibromides by Polarographic
Reduction."

CZECHOSLOVAKIA

KRUPICKA, J; ZAVADA, J; SINGER, J.

Institute of Organic Chemistry and Biochemistry of the
Czechoslovak Academy of Sciences, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 10, 1965, pp 3570-3574

"Stereochemical Studies. XXXV. The Polarographic Reduction of
Cycloalkyl Bromides: $E_{1/2}$ Values and Mechanism."

L 38500-66 EWT(F)/T DJ/WE

ACC NR: AP6006162 (A) SOURCE CODE: CZ/0078/65/000/010/0021/0021

AUTHOR: Krupicka, Jaroslav; Jerabek, Zdenek (Kladno) 26

ORG: none

TITLE: Reciprocating valveless engine with dual piston motion. CZ Pat. No. PV 6531-64

SOURCE: Vynalezky, no. 10, 1965, 21

TOPIC TAGS: engine crankshaft, engine piston, engine cylinder

ABSTRACT: An Author Certificate has been issued for a four-cycle valveless reciprocating engine with a dual, i.e., reciprocating and rotary, motion of the working piston. The motion of the piston controls the injection exhaust ports in the working cylinder. The dual motion is accomplished by specially designed crankshaft bearings housed in the lower section of the working cylinder. The reciprocating piston engages the crankshaft through the connecting rod, while the crankshaft's bevel gear meshes with another bevel gear fastened to the stationary bottom

Card 1/2

L 38500-00

ACC NR: AP6006162

of the working cylinder. The rotary motion is transmitted to a fly-wheel pivoted on the cylinder's bottom, as well as on the piston. The flywheel's rotation axis is synchronized with that of the working cylinder. [KP]

SUB CODE: 21/ SUBM DATE: 24Nov64/

Card 2/2 LC

KRUPICKA, K.

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and
their Applications, Treatment of Solid Fuels

H-22

Abs Jour : Ref Zhur - Khimiya, No 11, 1958, 37441

Author : Medricky Z, Krupicka K.

Inst : Not given

Title : Hard Pitch as a Raw Material for the Production of
Electrode Carbon

Orig Pub : Paliva, 1957, 37, #10, 336-339

Abstract : Presentation is made of an industrial scheme for a
continuous production of the pitch from tars, by means of
blowing air through them. Also presented are process
characteristics, physical and chemical properties of the
resulting products and their dependence on the method of
air blowing. Stated are also considerations for process

Card 1/2

2

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and
their Applications, Treatment of Solid Fuels

H-22

Abs Jour : Ref Zhur - Khimiya, No 11, 1958, 37441

Abstract : rationalization and for quality improvement of pitch
used in the Electrode carbon manufacturing.

Card 2/2

KRUPICKA, SVATOPLUK

CZECHOSLOVAKIA / Magnetism. Ferrites.

F-6

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 6871

Author : Krupicka, Svatopluk

Inst : Institute of Technical Physics, Czechoslovak Academy of Sciences, Prague, Czechoslovakia.

Title : Concerning the Problem of the Effective Internal Field in Ferromagnetic Resonance in Polycrystalline Ferrites.

Orig Pub : Ceskosl. casop. fys., 1956, 6, No 4, 401 - 408

Abstract : A study was made of ferromagnetic resonance in Mn-Zn-ferrites in the temperature range from -124 to 182° at a wavelength of 3 cm. The effective internal field and its temperature dependence were determined. Comparison with results of simultaneous measurements of the initial susceptibility indicates a close connection between the anisotropy of the crystal and the supplementary field or with the apparent change in the g-factor. Bibliography, 32 titles.

Card : 1/1

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826720018-7

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826720018-7"

CZECHOSLOVAKIA/Magnetism - Ferrites and Ferrimagnetism.

Abs Jour : Ref Zhur - Fizika, No 6, 1959, 13239

Author : Baoz, J., Bergstein, A., Krupicka, S., Vintera, J.,
Zaveta, K.

Inst : Institute of Technical Physics, Czechoslovak Academy of
Sciences, Prague, Czechoslovakia

Title : Influence of the Method of Preparation on Certain Magne-
tic Properties of Manganese-Zinc Ferrite.

Orig Pub : Chekhosl. fiz. zh., 1957, 7, No 1, 66-79.

Abstract : The authors have investigated the influence of temperature
and the annealing temperature on the magnetic properties
of manganese-zinc ferrites with an excess of manganese.
It was possible to correlate the magnetic properties with
the structure and chemical composition of the specimens.

Card 1/1

KRUPICKA, S.

Contribution to the study on ferromagnetic resonance of manganese zinc ferrites.

P. 240, (Ceskoslovensky Casopis Pro Fysiku) Vol.7, no.3, 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

CZECHOSLOVAKIA/Magnetism - Ferrites and Ferrimagnetism.

Abs Jour : Ref Zh. - Fizika, No 6, 1959, 13247

Author : Krupicka, Svatopluk

Inst : Institute of Technical Physics, Czechoslovak Academy
of Sciences, Prague, Czechoslovakia

Title : On the Study of Ferromagnetic Resonance in Manganese-Zinc
Ferrites.

Orig Pub : Chekhosl. fiz. zh., 1957, 7, No 3, 344-350

Abstract : A study was made of the temperature dependence of ferro-
magnetic resonance for three specimens of manganese-zinc
ferrite at 9300 Mcs. The results are discussed from the
point of view of the Tsui model for the additional inter-
nal field produced in ferromagnetic resonance.

Card 1/1

CZECHOSLOVAKIA/Magnetism - Ferrites and Ferrimagnetism.

Abs Jour : Ref Zhur - Fizika, No 6, 1959, 13250

Author : Krupicka, Svatopluk; Vilin, Frantisek

Inst : -

Title : Magnetic Viscosity of the Richter Type in Manganese-Ferrite.

Orig Pub : Ceskosl. casop. fys., 1957, 7, No 6, 694-698

Abstract : See Referat Zhur Fizika, 1959, No 1, 1096.

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- 74 -

CZECHOSLOVAKIA/Magnetism - Ferrites and Ferrimagnetism

F-6

Abs Jour : Ref Zhur - Fizika, No 1, 1959, No 1096

Author : Krupicka Svatopluk, Vilim Frantisok

Inst : Institute of Technical Physics, Czechoslovak Academy of
Sciences, Prague, Czechoslovakia

Title : Richter-Thpe Magnetic Aftereffect in Manganese Ferrite.

Orig Pub : Chekhosl. fiz. zh., 1957, 7, No 6, 723-728

Abstract : A study was made of magnetic relaxation in specimens of non-stoichiometric manganese ferrites by measuring the temperature dependence of the magnetic susceptibility and the loss angle at frequencies of 50, 100, and 200 kcs. The high values of the activation energy and the absence of a pronounced dependence on the defect or excess of oxygen in the ferrite indicate that the exchange of electrons between two and three valent ions of iron cannot be the main cause for the observed aftereffect. A hypothesis is advanced that the observed aftereffect is determined essentially by the

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CZECHOSLOVAKIA/Magnetism - Ferrites and Ferrimagnetism

F-6

Abs Jour : Ref Zhur - Fizika, No 1, 1959, No 1096

electron exchange between the manganese ions of different valence. This hypothesis is in agreement with the experiment on the study of acoustical resonance in Mn_3O_4 .

Ye.Z. Mazel'

Card : 2/2

CZECHOSLOVAKIA/Magnetism - Ferrites and Ferrimagnetism.

Abs Jour : Ref Zhur - Fizika, No 6, 1959, 13249

Author : Krupicka, Svatopluk

Inst : -

Title : Concerning the Problem of Magnetic Viscosity of the
Richter Type in Ferrites.

Orig Pub : Ceskosl. casop. fys., 1957, 7, No 6, 747

Abstract : See Referat Zhur Fizika, No 12, 27690.

Card 1/1

CZECHOSLOVAKIA/Magnetism - Ferrites and Ferrimagnetism

F-6

Abs Jour : Rof Zhur - Fizika, No 12, 1958, No 27690

Author : Krupicka Svatopluk

Inst : Institute of Technical Physics, Prague, Czechoslovakia

Title : A Note on Richter-Type Magnetic Relaxation in Ferrites

Orig Pub : Chokhosl. fiz. zh., 1957, 7, No 6, 769

Abstract : It has been established that the energy of activation E and the relaxation constant τ_{∞} in ferrites are connected by linear relation: $E = A \log \tau_{\infty} + B$, where A and B are the characteristics of the given type of material and of the given mechanism of diffusion relaxation.

Card : 1/1

CZECHOSLOVAKIA/Magnetic Resonance - Ferromagnetic and Anti-
Ferromagnetic Resonance

F

Abs Jour : Ref Zhur Fizika, No 4, 1960, 9013

Author : Krupicka Svatopluk

Inst :

Title : On the Theory of Resonance Line Width in Ferrites

Orig Pub : Czechosl. phys. zh., 1958, 8, No 5, 613-614

Abstract : See Abstract 9012.

Card 1/1

- 92 -

AUTHOR: Krupička, Svatopluk CZ/37-58-5-16/19
TITLE: On the Theory of the Width of Resonance Bands in Ferrites
(K teorii šířky rezonanční čáry u ferritů)
PERIODICAL: Československý časopis pro Fysiku, 1958, Nr 5,
p 627 (Czech)
ABSTRACT: From the theoretical considerations the following main
conclusions can be drawn:
a) the width ΔH should increase with the square root of
the saturation magnetisation;
b) for otherwise equal material ΔH increases with
increasing mean square deviation of the effective field
of the exchange forces and with decreasing Curie
temperature.
For verifying these conclusions experimentally, the
non-stoichiometric manganese-zinc ferrites studied by the
author in earlier work (Ref 3) were considered most
suitable. The specimens designated by B and C in
those papers had a fully similar characteristic of the
dependence of the saturation magnetisation on the reduced
temperature T/T_c (Ref 4). However, as a result of
differing oxygen contents they had differing Curie

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On the Theory of the Width of Resonance Bands in Ferrites
 temperatures (81°C for specimen B and 111°C for specimen C).
 The chemical compositions of the two specimens can be
 approximately expressed by the hypothetical formulae:
 $\text{Zn}_{0.52}\text{Fe}_{0.48}\text{O}_4$ for the specimen B and
 $\text{Mn}_{0.52}\text{Fe}_{0.48}\text{O}_4$ for the specimen C.
 Since for manganese-zinc ferrites the crystalline anisotropy
 is very small, it can be anticipated that the width of the
 resonance line measured on the single crystal will be
 larger than the width for the specimen B and C.
 This is because the effective anisotropy of the single
 crystal and the above mentioned theoretical conclusions
 should apply to these specimens. For both these specimens,
 the dependence of the width ΔH and on $\sqrt{M_s}$ is derived from the
 thermal measurements of ΔH and M_s is graphed in Fig. 1. Only
 a part of the dependence is graphed which corresponds to
 the lower temperatures (Refs 3 and 4). The anomalous characteristic of the
 lower than 0°C) dependence of ΔH at elevated temperatures,
 temperature dependence of ΔH at elevated temperatures,
 Card 2/4 as shown in Fig. 2 of the earlier paper (Ref 3), seems to

On the Theory of the Width of Resonance Bands in Ferrites
 be governed by a different phenomenon. Both relations
 are satisfactorily linear; the fact that the dependence
 is linear but not directly proportional as would follow
 from the theory can at least partly be explained by the
 dependence of the width on the ratio $H/4\pi M_s$ (Ref 2).
 According to theoretical considerations, the
 the straight line expressing the
 $\sqrt{M_s}$ should be

The Perminvar Effect and Magnetic After-effect in Magnesium Manganese Ferrite

CZECH/37-59-2-2/20

investigated some of the conditions for the existence of the perminvar effect and its connections with relaxation effects. We have used a ferrite of composition $Mg_{0.75}Mn_{0.35}Fe_{1.80}O_4$. The theory of magnetic after-effects has been worked out by Néel for α -iron containing some interstitials (mainly carbon). Although in the case of ferrites, no exact model of the diffusion processes is known, the general results of Néel's theory can, nevertheless, be used. Let us assume (Ref 7) that the behaviour of the sample in a magnetic field can be described on the basis of the motion of a single effective Bloch-wall. This is equivalent to assuming that each wall moves under the action of a mean magnetic field depending on the mean magnetic induction of the sample "B". The mean effective field of the magnetic after-effect can then be written as:

$$h(t, B) = h_{\infty}(B) G(t) \quad (8)$$

If we determine the value of the effective field $h(t)$ from the perminvar effect according to Eq (9), for two stabilising times t_0, t , we obtain Eq (12):

Card
2/4

00513R00082672

AUTHOR: Krup'ka, Svatopluk CZ/37-58-5-16/19
 TITLE: O- any of the Width of Resonance Bands in Ferrites
 (řídky rezonanční čáry u ferritů)
 PERIOD: Československý časopis pro fyziku, 1958, Nr 5,
 (ch)

ABSTRACT: theoretical considerations the following main
 conclusions can be drawn:
 a) the width ΔH should increase with the square root of
 the saturation magnetisation;
 b) for otherwise equal material ΔH increases with
 increasing mean square deviation of the effective field
 of the exchange forces and with decreasing Curie
 temperature.
 For verifying these conclusions experimentally, the
 non-stoichiometric manganese-zinc ferrites studied by the
 author in earlier work (Ref 3) were considered most
 suitable. The specimens designated by B and C in
 those papers had a fully similar characteristic of the
 dependence of the saturation magnetisation on the reduced
 temperature T/T_c (Ref 4). However, as a result of
 differing oxygen contents they had differing Curie

Card 1/4

CZ/37-58-5-16/19

he Theory of the Width of Resonance Bands in Ferrites
 temperatures (81°C for specimen B and 111°C for specimen C).
 The chemical compositions of the two specimens can be
 approximately expressed by the hypothetical formulae:
 $\text{ZnFe}_{2.04}\text{Fe}_{2.03}\text{O}_{4.46}\text{Mn}_{3.04}$ for the specimen B and
 $\text{Mn}_{0.5}\text{Zn}_{0.5}\text{Fe}_{2.04}\text{O}_{4.06}\text{Mn}_{3.04}$ for the specimen C.
 Since for manganese-zinc ferrites the crystalline anisotropy
 is very small, it can be anticipated that the width of the
 resonance line measured on the single crystal will be
 larger than the effective anisotropy field. As a result
 of this, the width for the crystalline specimens B and C
 is basically determined by the resonance line of the single
 crystal and the above mentioned theoretical conclusions
 should apply to these specimens. For both these specimens,
 the dependence of the width ΔH on $\sqrt{M_s}$ derived from the
 thermal measurements of ΔH and M_s in earlier
 published work (Refs 3 and 4) are graphed in Fig.1. Only
 a part of this dependence is graphed which corresponds to
 the lower temperatures (approximately from temperatures
 lower than 0°C); the anomalous characteristic of the
 temperature dependence of ΔH at elevated temperatures,
 Card 2/4 as shown in Fig.2 of the earlier paper (Ref 3), seems to

CZ/37-58-5-16/19

On the Theory of the Width of Resonance Bands in Ferrites

be governed by a different phenomenon. Both relations are satisfactorily linear; the fact that the dependence is linear but not directly proportional as would follow from the theory can at least partly be explained by the dependence of the width on the ratio $H/4\pi M_s$ (Ref 2). According to theoretical considerations, the direction of the straight line expressing the dependence of H on $\sqrt{M_s}$ should be proportional to the mean square deviation of the exchange field. As can be seen from the graph, Fig.1, this direction angle is indeed larger for the specimen B which in view of the above mentioned chemical composition has a considerably larger number of vacancies in the crystal lattice than the specimen C and thus also a larger fluctuation of the exchange field. Equally, it can be seen from Fig.1 that the requirement of a larger resonance width ΔH for a material with a lower Curie temperature is fulfilled.

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On the Theory of the Width of Resonance Bands in Ferrites
CZ/37-58-5-16/19
There are 1 figure and 6 references, 2 of which are Czech,
4 English.

(Note: This is a complete translation except for the
first paragraph)

ASSOCIATION: Ústav technické fyziky ČSAV, Praha
(Institute of Technical Physics, Czechoslovak Ac.Sc.,
Prague)

SUBMITTED: April 25, 1958

Card 4/4

CZECH/37-59-2-2/20

AUTHORS: Jaromír Brož, Svatopluk Krupička, Bohumil Zitka
TITLE: The Perminvar Effect and Magnetic After-effect in
Magnesium Manganese Ferrite

PERIODICAL: Československý Časopis Pro Fysiku, 1959, Nr 2,
pp 124-132 (+ 1 plate)

ABSTRACT: Some ferro-magnetic materials show a hysteresis curve with a characteristically narrow central part. The permeability of these materials in weak fields is practically independent of the field. These materials are called "Perminvars" (Ref 1). The theory of the perminvar effect has been studied by Kienlin (Ref 2). A stable perminvar effect can only be observed if the demagnetisation is carried out at a temperature sufficient for diffusion processes to occur rapidly and, thereafter, the material is cooled so that the stabilised state "freezes in". The diffusion processes leading to the stabilisation of the demagnetised state also lead to magnetic after-effects of the Richter type (Refs 4, 5). A connection between the two effects has been experimentally determined for α -iron (Refs 6, 7) and for some ferrites (Refs 8,9,10). In the present work we have

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The Perminvar Effect and Magnetic After-effect in Magnesium
Manganese Ferrite

CZECH/37-59-2-2/20

investigated some of the conditions for the existence of the perminvar effect and its connections with relaxation effects. We have used a ferrite of composition $Mg_{0.75}Mn_{0.35}Fe_{1.8}O_4$. The theory of magnetic after-effects has been worked out by Néel for α -iron containing some interstitials (mainly carbon). Although in the case of ferrites, no exact model of the diffusion processes is known, the general results of Néel's theory can, nevertheless, be used. Let us assume (Ref 7) that the behaviour of the sample in a magnetic field can be described on the basis of the motion of a single effective Bloch-wall. This is equivalent to assuming that each wall moves under the action of a mean magnetic field depending on the mean magnetic induction of the sample "B". The mean effective field of the magnetic after-effect can then be written as:

$$h(t, B) = h_{\infty}(B) G(t) \quad (8)$$

If we determine the value of the effective field $h(t)$ from the perminvar effect according to Eq (9), for two stabilising times t_0, t , we obtain Eq (12):

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The Perminvar Effect and Magnetic After-effect in Magnesium
Manganese Ferrite

CZECH/37-59-2-2/20

$$h(t) - h(t_0) = \frac{h_{\infty}(B)}{1/\chi_{\infty} - 1/\chi_0} (1/\chi(t) - 1/\chi(t_0)). \quad (12)$$

The measurements were taken at a temperature of -195 °C. The time-dependence of the permeability was measured with a field intensity of 10 mOe and at a frequency of 200 kc/s. The hysteresis curve was determined by normal oscillographic methods with a magnetic field of amplitude H_m and frequency 50 c/s. Our experiments have shown that the perminvar effect is observed if the sample is demagnetised after cooling to liquid nitrogen temperature and after a certain time, necessary for the stabilisation of the demagnetised state, the magnetising field is applied. The observed effect was not stable. The instability was independent of the speed of cooling the sample. If, on the other hand, the sample was demagnetised at room temperature and afterwards cooled to liquid nitrogen temperature, a weak perminvar effect occurred if the cooling was slow, while it was not observed if the sample was cooled rapidly. The optimum field for observing the effect was 0.60 Oe and this was used for

Card 3/4

CZECH/37-59-2-2/20
The Perminvar Effect and Magnetic After-effect in Magnesium
Manganese Ferrite

subsequent measurements. The change in the perminvar effect with the stabilising time t is shown in Fig 4B (plate, p 222a). Fig 4C shows the dependence of the effect on the duration τ of the magnetising field. From these measurements, the magnitudes H_p and h (see Eq (9) and Fig 3) were determined. h is shown in Fig 5 as a function of t and τ . This figure also shows the decrease of the permeability after demagnetisation. All these curves show similar characteristics. There are 7 figures and 14 references, of which 6 are English, 1 Czech, 4 German and 3 French.

Card 4/4

ASSOCIATION: Ústav technické fyziky ČSAV, Praha
(Institute Tech. Phys., Ac. Sc., Prague)
SUBMITTED: August 7, 1958

4
5
The permeability effect and magnetic after-effect in magnesian manganese ferrite. Jaroslav Broz, Vlastimil Kříž, and Bohumil Žitka (Czech Acad. Sci., Prague). *J. Phys. C*, 314-23 (1969) (in English); cf. *Baz. C.A.* 52, 10069. -- An unstable premineral effect is found in Mg Mn ferrite at a temp. of -105° . Its connection with the magnetic after-effect is investigated. The analysis carried out on the basis of Néel theory shows that both effects are a result of the same diffusion process. The exptl. results also show that 180° Bloch walls are displaced when the sample is magnetized.

A. Kremheller

JRT

012

The distribution of ions and their valences in manganese ferrites) I. $MnFe_2O_4$, γ ferrites. Svatopluk Krupicka and Karel Zaytla, Czechoslovak J. Phys. 9, 321-331 (1959) (English).—A model for the distribution of cations in the spinel lattice of Mn ferrites, $MnFe_2O_4$, γ , is presented on the basis of the exptl. studies of the basic magnetic quantities, elec. conductivity, and magnetic relaxation of the given ferrites, taking into consideration their crystallographic properties. The conclusions following from this model are in good agreement with the exptl. results obtained by us and by other authors both for stoichiometric Mn ferrite and for a ferrite where $\gamma \neq 0$. 18 references. A. Kucmichev—

✓ The distribution of ions and their valencies in manganese ferrites, $\text{Mn}_{1-x}\text{Fe}_x\text{O}_4$ ferrites. J. Brož, S. Kroupka, and K. Závěta (Czechoslov. Acad. Sci., Prague). *Czechoslov. J. Phys.* 9, 451-7(1959)(in English); cf. CA 53, 21017. The influence of the oxygen content on the natn. of the magnetic moment and the Curie temp. was studied expl. on nonstoichiometric Mn ferrites having a varying excess of Mn. With consideration of the results of studying the elec. cond. and magnetic relaxation effects, a model was developed for the distribution of ions in these ferrites, which starts out from the distribution of ions in stoichiometric Mn ferrite. The expl. results obtained by these and other authors justify this model.

4
1-5A+CHAY)

Krupicka S.
CZECHOSLOVAKIA/Radio Physics - Radiation of Radio Waves.
Transmission. Lines and Antennae

I

Abs Jour : Ref Zhur Fizika, No 1, 1960, 1713
Author : Hamal, K., Krupicka, S., Dusek, J., Michalik, D.
Inst : -
Title : Certain Applications of Type MnMg Ferrites in Micro-
wave Technology
Orig Pub : Slaboproudý obzor, 1959, 20, No 5, 287-292
Abstract : Certain types of manganese-magnesium ferrites are
used successfully in microwave technology. Physical
and experimental technical data on ferrites of this
type prepared in the laboratory of the Institute of
Technical Physics in Czechoslovakia are reported.

Card 1/1

KRUPICKA, Svatopluk

Ferrites. Pokroky fys pev latek 5:57-110 '60. (SEAI 9:7)

1. Ustav technicke fysiky Ceskoslovenske akademie ved, Praha
(Ferrates)

2
Magnetic after-effect in Mg-Mn ferrite caused by electron
diffusion. Svatopluk Krupka (Inst. Tech. Phys., Acad.
Wiss., Prague). *Naturwissenschaften* 47: 113-4 (1960)
New results of the investigations of the after-effect in
Mg-Mn $x = 0.4$ Fe $x = 0.6$ series are described. In their
relaxation spectrum 3 diffusion processes (I, II, III) occur.
I and II occur at low temps., while III takes place at higher
temps. I and III vary with the Mn concn.; the activation
energy increases as the Mn concn. decreases. In II the
2 values are independent of each other. J. J. J.

3
JAJ (copy)

17 8100

38125
S/058/62/000/004/121/160
A061/A101

AUTHOR: Krupička, S.

TITLE: A note on magnetic after-effect in iron-rich ferrites

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 46, abstract 4E401
("Chekhosl. fiz. zh.", 1961, v. B11, no. 6, 457 - 459, English)

TEXT: In continuation of a paper on the de-accomodation of $Mn_xFe_{3-x}O_4$ (RZhFiz, 1961, 8E505), where four relaxation zones, I, II, III, and IV, had been established at temperatures below -200, -50, 20, and $\sim 180^\circ C$, respectively, de-accomodation is now studied on two ferrites, $Mg_{0.8}Fe_{2.2}O_4$ and $Mg_{0.5}Fe_{2.5}O_{4.02}$. The aim was that of clarifying whether Mn ions or Fe ions are responsible for relaxation. Mg ferrites were chosen because of the constant valence of Mg ions. The relaxation zones I and II are found to be absent in these ferrites, whereas III and IV show distinctly. Zone II is ascribed to Mn^{2+} ions, III and IV to Fe ions.

N. Smol'kov

[Abstracter's note: Complete translation]

Card 1/1

S/196/62/000/010/008/035
E073/E155

24,7900

AUTHOR: Krupička, S.

TITLE: The influence of magnetic after-effect on the
rectangularity of the hysteresis loop of MgMn ferrites

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika,
no.10, 1962, 3, abstract 10 B17. (Czechosl. Journal
of Physics, B11, no.11, 1961, 828-831). (English,
abstract in Russian)

TEXT: The influence of magnetic relaxation on the
rectangularity of the hysteresis loops of Mn-Ng ferrites of two
compositions was investigated. It was found so small that it
cannot account for rectangular hysteresis loops in these materials.
7 references.

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[Abstractor's note: Complete translation.]

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